

## ABSTRACT

A lithographic projection apparatus is disclosed. The apparatus includes a support structure constructed to support a patterning structure. The patterning structure is adapted to pattern a beam of radiation according to a desired pattern. The apparatus also includes a substrate holder that is constructed to hold a substrate, a projection system that is constructed and arranged to project the patterned beam onto a target portion of the substrate, and a downstream radical source that is connected to a gas supply and is configured to provide a beam of radicals onto a surface to be cleaned.